

A NEW SPECIES OF *IPOMOEA* (CONVOLVULACEAE) FROM OAXACA, MEXICO

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ABSTRACT

Recent collecting in Mexico has uncovered a novelty in *Ipomoea* (Convolvulaceae), *I. gesnerioides*, from the arid Tehuacán valley of Oaxaca. It is closely related to *I. bombycina* Benth. & Hook., section *Bombycospermum* (Presl) Austin, but differs by producing basally terete stems, mostly terminal inflorescences, and larger, broadly urceolate corollas 3 – 3.5 cm long and 1.5 – 2 cm broad.

RESUMEN

Se reconoce una nueva especie del Valle de Tehuacán, Oaxaca, *Ipomoea gesnerioides*. Parece ser relacionada con *I. bombycina*, sect. *Bombycospermum*, de la cual se distingue por tallos basales rollizos, inflorescencias usualmente terminales y corollas urceoladas, 3 – 3.5 cm de largo.

Ipomoea gesnerioides McDonald sp. nov.

A *Ipomoea bombycinae* caule basale laeve terete ac corollis 3 – 3.5 cm longis 1.5 – 2 cm latis statim diagnoscenda.

Vines lignescent, twining. *Stems* terete, initially erect and straight, becoming twining and contorted, the hypocotyl swollen, succulent, smoothish, terete-ellipsoid, 5 – 8 cm long, to 3 cm in diam., tan to gray, subdermally chlorophyllous, bearing many short shoots at the apex, ascending stems 0.5 – 3 m long, 2 – 12 mm in diam., new growth pale green, villous, old growth tan, bark membranous, glabrous; internodes 1.5 – 2.5 cm long; roots fibrous. *Leaves* petiole; petioles terete, 0.5 – 3.5 cm long, reduced on terminal, fertile branchlets, puberulent, villous or canescent; lamina broadly elliptic or occasionally somewhat rhombic, 2 – 8 cm long, 1.5 – 5 cm wide, dark green and puberulent above, canescent below, primordially corrugate, margins entire, apex acute or acuminate, base acute or subtruncate, occasionally subcordate on fertile branchlets; venation pinnate. *Inflorescence* a scorpioid pseudoraceme comprised of reduced, congested, single flowered cymes usually at the apex of fertile branches; peduncles wanting; pedicels terete, 2 – 9 mm long, 0.5 – 1 mm in diam., green, puberulent; sepals subequal, ellipsoid, 1.1 – 1.5 cm long, 5 – 7 mm wide, coriaceous, canescent or variably villous, margins entire, apex acute or obtuse; corolla urceolate, basal portion of tube 6 – 8 mm long, 4 – 8 mm in diam., distal portion dilating, 2.5 – 3 cm long, 1.5 – 2 cm broad medially, pale green, limb flaring



FIG. 1. Fertile shoots of *Ipomoea gesnerioides* based on the holotype. A. Flowering branch. B. Seed. C. Mature fruiting branch.

abruptly, 2.5 – 3 cm wide, interplacae pale green, the exterior pubescent, plical regions purple, glabrous; stamens subequal, 3.0 – 3.5 cm long, white, style surpassing androecium by ca. 2 mm; stigma bilobate, white. *Fruit* a broadly ellipsoid capsule, locules 2, valves 4, tan, chartaceous, 1.1 – 1.3 cm long, 8 – 10 mm wide, glabrous; seeds 4, ellipsoid, 3-angled, 6 – 7 mm long, 3 – 3.5 mm wide, dark brown, minutely puberulent with dense lanate tufts of hair along angle margins toward hilum, hairs white, to 1 cm long.

TYPE: MEXICO. OAXACA: 10.4 mi W of Santiago Astata on Hwy 200, in scrub-deciduous forest, 9 Mar 1985, *Luckow* 2605 (HOLOTYPE: TEX!; ISOTYPES: MEXU!, US!).

Ipomoea gesnerioides most closely approaches *I. bombycina* Benth. & Hook., type species of *Ipomoea* sect. *Bombycospermum* (Presl) D. Austin, by the presentation of

a swollen hypocotyl 1 – 3 cm wide, initially erect stem growth that later becomes twining, somewhat corrugate leaves, scorpioid pseudoracemes, urceolate corollas, and densely lanate seeds. *Ipomoea gesnerioides* is unique among all other *Ipomoea* of Mexico, however, in producing mostly terminal, scorpioid pseudoracemes and large (3 – 3.5 cm long, medially 1.5 – 2 cm in diameter) urceolate corollas with a pale green and purple limb. Flowers of *I. bombycina* are generally born on axillary pseudoracemes (sometimes terminal), and corollas never exceed 2.5 cm in length and 1 cm in diameter. The vegetative features of these two species are also distinctive, *I. bombycina* bearing a rough, furrowed, swollen hypocotyl, while the swollen hypocotyl of *I. gesnerioides* is terete and relatively smooth. Both species are restricted to the tropical deciduous forest of southern Mexico, *I. bombycina* occurring from Jalisco to Guerrero in tropical deciduous forest, and *I. gesnerioides* from its type locality in the arid Tehuacán Valley of Oaxaca.